

TransMedTech Principal Investigator in PET/MR imaging physics

Assistant Research Professor Faculty of Medicine/Department of Radiology, Radio-oncology and Nuclear medicine in association with the University of Montreal Hospital Research Center (CRCHUM).

Position Description

The Department of Radiology, Radio-oncology and Nuclear Medicine of the Faculty of Medicine of the University of Montreal is seeking applications for a Junior Faculty at the rank of Assistant research professor in the area of PET Medical Physics and/or Biomedical Engineering with expertise in PET and MR imaging. This recruitment will be made jointly with Université de Montréal and the Transmedtech Institute which is a consortium in biomedical engineering led at Ecole Polytechnique de Montreal. The mission of the TransMedTech Institute team is to support the accelerated development of next-generation medical technologies applied to three broad categories of disease (cardiovascular, musculoskeletal and cancer) in order to facilitate their implementation in the health system. Training the next generation of medical technology professionals and making innovation in life sciences and engineering a source of wealth for society is also at the heart of TransMedTech's mission

Job description

The successful candidate will conduct his (her) research program in an outstanding scientific environment, at the crossroads between cellular and molecular biology, radiochemistry, imaging physics, and biophysical modeling within the "Imaging and Bioengineering Research Axis" of the University of Montreal Hospital Research Center (CRCHUM).

The candidate will work with the other partners of the Transmedtech Institute (Ecole Polytechnique de Montreal, CHU Sainte Justine and Montreal Heart Institute). Working in their professional capacity as PET Physicist, the incumbent research program will include quantitative imaging by developing novel technologies that will improve quantitative accuracy of molecular imaging (advanced PET detectors, advanced MRI pulse sequence and probe design), data corrections (motion, scatter, normalization), kinetic modeling, and image reconstruction techniques, which can be combined in efficient and reliable software pipelines. Focus will also be on the calibration, quality control, setup and basic troubleshooting of the multimodality microPET/MR, instrumentation and software.

Responsibilities

The appointed candidate will be expected to:

- Maintain an active research program and funding,
- Collaborate closely with PET and MRI researchers working in three affiliated research centers at University of Montreal: CHUM, CHU-Ste Justine (Pediatric Hospital) and Institut de Cardiologie de Montreal (Montreal Heart Institute) and an engineering school (Ecole Polytechnique de Montreal) inside the Transmedtech Institute.,
- Contribute to the academic life of the Department of Radiology, Radio-oncology and Nuclear Medicine, participate in the activities of the Institute of Biomedical Engineering and Medical Physics Program,
- Teach graduate courses.
- Supervise graduate students,
- Maintain academic visibility (rayonnement)

- Work with collaborative teams on the multidisciplinary aspects of the research projects and will further analyze the data, write manuscripts and grants

Requirements

Applicants should have a PhD in Medical Physics or Biomedical Engineering, or equivalent. Strong expertise in PET human/animal imaging reconstruction/modeling is required. Prior experience working on a research platform, especially the multimodality imaging PET/MR, will be appreciated. We are seeking candidacies able to develop and validate new PET and MRI methods, and sequences that can be combined with PET imaging. The ability to work in a multidisciplinary team is required. Candidates with the strongest motivation to work and make a difference in a collaborative and multidisciplinary environment will be preferred. Experience with grant writing and fellowship applications is an asset.

The teaching language is French; consequently, non-French-speaking candidates should become able to teach in French no longer than three years after their appointment.*

Information about the position

| | |
|----------------|---|
| Posting number | MED 09-18/11 |
| Deadline | The announcement will remain open until the selection committee finds an acceptable candidacy.. |
| Treatment | The University of Montreal offers competitive salaries and a full range of benefits. |
| Starting date | January 2019 |

Application

Interested candidates should send their *curriculum vitae*, a letter explaining their motivation, research interest and competence in their area of expertise, and three letters of support, no later than November 16th; at the following address (email correspondence is preferred):

Dr Gilles Soulez, Director
 Department of Radiology, Radio-oncology and Nuclear Medicine Faculty of Medicine
 University of Montreal
 C.P. 6128, succursale Centre-ville
 Montréal (Québec)
 H3C 3J7
 Email: gilles.soulez@umontreal.ca

* Language Policy

Université de Montréal is a Québec university with an international reputation. French is the language of instruction. To renew its teaching faculty, the University is intensively recruiting the world's best specialists. In accordance with [the institution's language policy](#), Université de Montréal provides support for newly-recruited faculty to attain proficiency in French.

Confidentiality

The Université de Montréal application process allows all regular professors in the Department to have access to all documents unless the applicant explicitly states in her or his cover letter that access to the application should be limited to the selection committee. This restriction on accessibility will be lifted if the applicant is invited for an interview.

Equal Access Employment Program

Through its Equal Access Employment Program, Université de Montréal invites women, Aboriginal people, visible and ethnical minorities, as well as persons with disabilities to apply. During the recruitment process, our selection tools will be adapted to meet the needs of people with disabilities who request it. Be assured of the confidentiality of this information.

Université de Montréal is committed to the inclusion and the diversity of its staff and also encourages people of all sexual and gender identities to apply.

Immigration Requirements

We invite all qualified candidates to apply at UdeM. However, in accordance with immigration requirements in Canada, please note that priority will be given to Canadian citizens and permanent residents.



Faire carrière à l'UdeM : aider la société, relever des défis et être considéré